#### (12) INTÉRNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization

International Bureau



## | 0.013 | 1.014 | 1.014 | 1.014 | 1.014 | 1.014 | 1.014 | 1.014 | 1.014 | 1.014 | 1.014 | 1.014 | 1.014 | 1.014

(43) International Publication Date 18 March 2004 (18.03.2004)

**PCT** 

(10) International Publication Number WO 2004/023014 A3

- (51) International Patent Classification7:
- \_\_\_\_

E21B 19/16

(21) International Application Number:

PCT/US2003/025716

- (22) International Filing Date: 18 August 2003 (18.08.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/412,371

9 September 2002 (09.09.2002) US

- (71) Applicant (for all designated States except US): ENVENTURE GLOBAL TECHNLOGY [US/US]; 16200 A Park Row, Houston, TX 77084 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): COSTA, Scott [US/US]; 2011 Willow Point, Kingwood, TX 77330 (US). RING, Lev [US/US]; 14126 Heatherhill Place, Houston, TX 77077 (US). MENCHACA, Jose [US/US]; 9800 Pagewood Lane, Number 210, Houston, TX 77042 (US).
- (74) Agent: MATTINGLY, Todd; Haynes and Boone, LLP, 1000 Louisiana, Suite 4300, Houston, TX 77002-5012 (US).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Declaration under Rule 4.17:

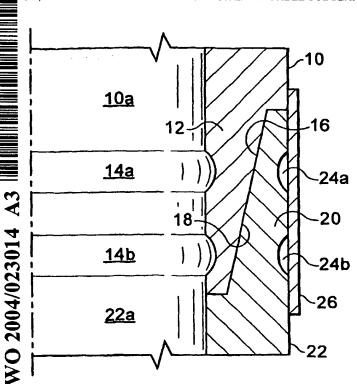
of inventorship (Rule 4.17(iv)) for US only

#### Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

#### (54) Title: THREADED CONNECTION FOR EXPANDABLE TUBULARS



(57) Abstract: A threaded connection for expandable tubulars. There is a first tubular (10) with external threads (16) and a second tubular (22) with matching internal threads. Each of these tubular has stress concentration grooves (14a, 14b, 24a, 24b). There is a sleeve (26) that goes over the connection between the threaded portions of the tubulars. After connection these tubulars can be expanded downhole in a wellbore.

## WO 2004/023014 A3



(88) Date of publication of the international search report: 3 March 2005

(15) Information about Correction:
Previous Correction:
see PCT Gazette No. 41/2004 of 7 October 2004, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

### INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/25716

		101/0303/23/10		
A. CLASSIFICATION OF SUBJECT MATTER				
IPC(7) : E21B 19/16				
US CL : 166/380, 207; 285/333				
According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum do	cumentation searched (classification system followed	hy classification symbols		
U.S. : 10	66/380, 207, 381, 382, 206; 285/333, 334; 403/297	by classification symbols)	1	
5187 1 1587 564, 254, 254, 255, 554, 467257				
Documentation	on searched other than minimum documentation to the	ne extent that such documents are included	d in the fields searched	
Electronic da	ta base consulted during the international search (na	me of data base and, where practicable, s	earch terms used)	
Please See Co	ontinuation Sheet			
ł				
	UMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.	
X	US 5,924,745 A (Campbell) 20 July 1999 (20.07:1	999), figures 3 and 4, column 3, lines	1, 3-5, 7-9, 11, 12,	
	9 - column 4, line 27.	·	15, 17-21	
Y	SU 1,756,531 A (KRYZHANOVSKII et al) 28 Ma	rch 1990 (28.03.1990), Figure 1.	1, 3-5, 7-9, 11, 12,	
ļĺ	abstract.		15, 17-21	
Y	WO 99/23354 (METCALFE) 14 May 1999 (14.05.	.1999), figure 5, page 11 lines 23-28.	1, 3-5, 7-9, 11, 12,	
			15, 17-21	
A, E	US 6,622,797 B2 (SIVLEY IV) 23 September 2003	3 (23.09.2003), whole document.	1-12, 15-21	
	•	,,,		
A, E	US 6,607,220 B2 (SIVLEY, IV) 19 August 2003 (	19.08.2003), whole document.	1-12, 15-21	
	-	,,		
A, P	US 6,564,875 B1 (BULLOCK) 20 May 2003 (20.0	5.2003), whole document.	1-12, 15-21	
	,		2, .3 21	
A	A US 2002/0108756 A1 (HARRALL et al) 15 August 2002 (15.06.2002), whole document.			
	1-12, 13-21			
A	US 6,322,109 B1 (CAMPBELL et al) 27 November 2001 (27.11.2001), whole document. 1-12, 15-21		1-12, 15-21	
	7			
A	US 6,085,838 A (VERCAEMER et al) 11 July 2000 (11.07.2000), whole document. 1-12, 15-21			
177 E-1	Account to the state of the sta		· · · · · · · · · · · · · · · · · · ·	
Further documents are listed in the continuation of Box C. See patent family annex.				
* Special categories of cited documents: "T" later document published after the international filing date or				
"A" document	defining the general state of the art which is not considered to	priority date and not in conflict with	the application but elted to	
	icular relevance	understand the principle or theory un	derlying the invention	
"B" carlier an		"X" document of particular relevance; the	claimed invention cannot be	
date	plication or patent published on or after the international filing	considered novel or cannot be considered when the document is taken along	ered to involve an inventive	
	anta a sa			
"L" document which may throw doubts on priority claim(s) or which is cited "Y" document of particular relevance; the claimed invention cannot be to establish the publication date of another citation or other special reason considered to involve an inventive step when the document is				
(as specif		combined with one or more other suc	cp water the document is th documents, such	
O document	referring to an and disclosure was sublikisless as sales	combination being obvious to a person	on skilled in the art	
[	referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent	family	
The document published prior to the international filing date but later than the				
Date of the actual completion of the international search  Date of mailing of the international search report				
			ion report	
12 March 2004 (12.03.2004)		1 3 JAN 2005		
Name and m	ailing address of the ISA/US	Authorized officer		
Mail Stop PCT, Attn: ISA/US		David J. Bagnell J V vel cur	ĺ	
		David J. Bagnell V V	David J. Bagnell V V	
P.O. Box 1450 Alexandria, Virginia 22313-1450 Telephone No. (703) 308-1113				
Facsimile No. (703) 305-3230				
Form PCT/ISA/210 (second sheet) (July 1998)				
1 01711 LC 1/19/	JALIO (SECONO SNEEN) (JUNY 1978)			

INTERNATIONAL SEARCH REPORT	PC1/US03/25716			
Continuation of B. FIELDS SEARCHED Item 3: Derwent, JPO, EPO				
Terms: Thread, Stress concentrator, stress, expand/expanding, tubular, casing				
Form PCT/ISA/210 (second sheet) (July 1998)				